



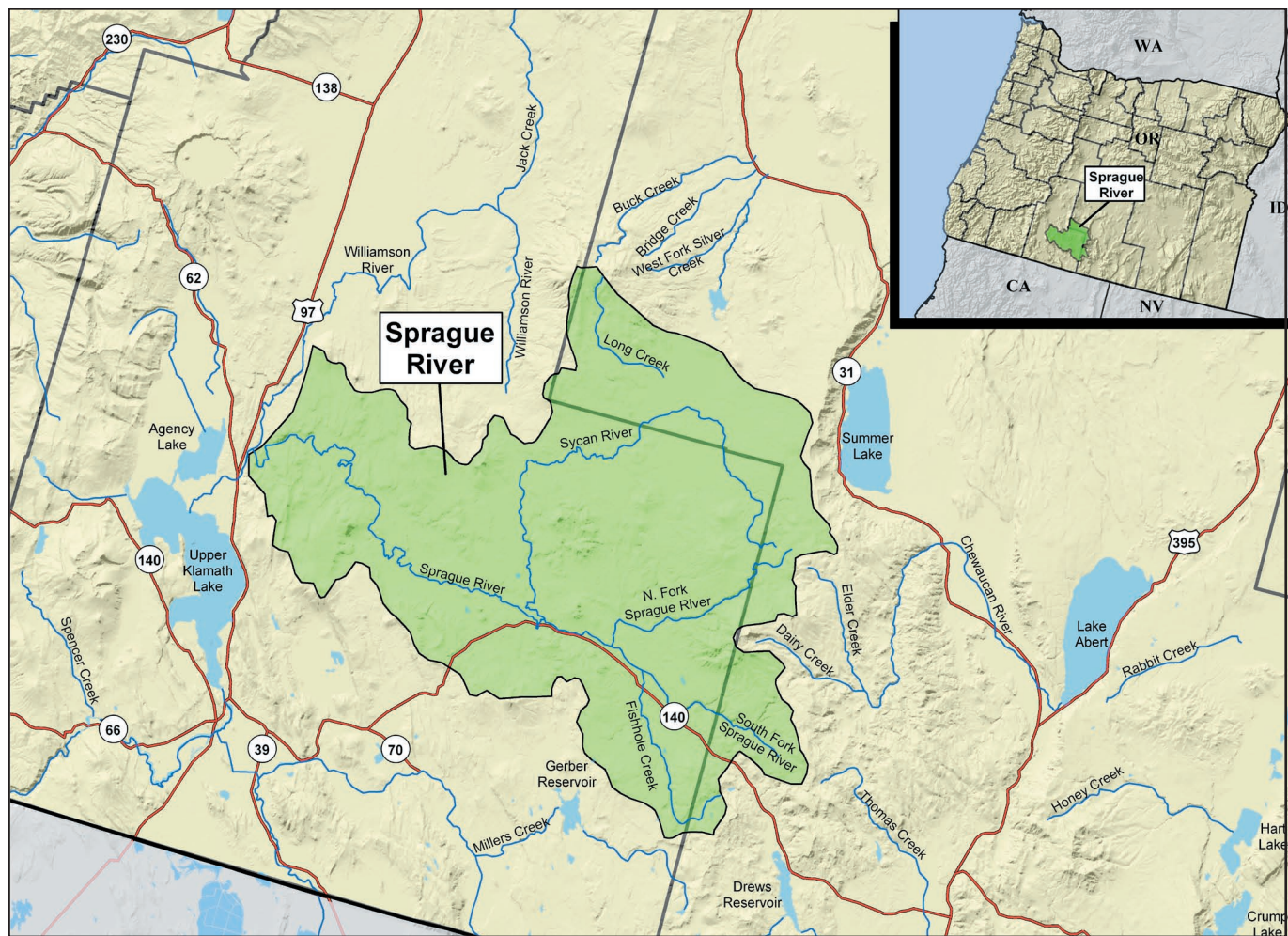
United States Department of Agriculture

## Conservation Effects Assessment Project (CEAP)

### Watershed Fact Sheet

## Sprague River Watershed, Oregon: 2004-2007

An NRCS\* Special Emphasis Watershed, one of 24 CEAP watershed projects.



## CEAP Assessment

Evaluate effects of improving agricultural irrigation water management, restoring wetland/riparian areas, and conducting forest and range management on water quantity and quality.

- Impaired water quality parameters: dissolved oxygen, temperature, pH, and chlorophyll A.
- Endangered & threatened species: bull trout, Lost River sucker, shortnose sucker

## Watershed Description

- 1 million acres
- 56% public lands, 24% private forest, 11% rangeland, 6% irrigated
- Upper Klamath Lake and several tributaries, including Sprague River, have been designated impaired water bodies by Oregon.

**Issues:** Water shortages, irrigation water demands, water quality, streambank erosion, fish and wildlife habitat (including endangered suckers and Coho salmon, and migratory birds).

*\*Natural Resources Conservation Service*





Sprague River Valley in the summertime.



Poor riparian area management.



Collecting hydro-acoustic data on the Sprague River for Klamath tribes.



Good riparian area management.

## Approach

**Water Sampling:** Temperature, dissolved oxygen, pH

**Watershed Models:** MIKE SHE, DHSVM (Distributed Hydrology Soil Vegetation Model), and AnnAGNPS (Annualized Agricultural Non-Point Source model)

**Assess Practices:** Irrigation water management, riparian/wetland restoration, and forest and range management.

## Communicating Results

Three annual progress reports planned. Project report will include 1) a detailed description of the hydro-climatology of the Sprague River basin as relevant to the understanding of the water balance and 2) recommendations on the technical capabilities of three hydrologic models (MIKE SHE, DHSVM, and AnnAGNPS) to assess the effects of conservation activities on the watershed's water budget.

## Collaborators

- U.S. Geological Survey
- U.S. Fish and Wildlife Service
- U.S. Bureau of Land Management
- USDA Forest Service
- Klamath Tribes
- Klamath Soil and Water Conservation District
- The Nature Conservancy
- Sprague River Watershed Council
- University of Washington, University of Oregon, and Oregon State University
- Local farmers and ranchers

## Contacts

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